Saturn's Moons

Name	color	craters	shape	Atmosphere	Orbit type	New Information
Titan	orange	unknown	round	yes	Synchronous rotation*	
Mimas	gray	yes	round	no	Synchronous rotation*	
Enceladus	pure white	no	round	no	Synchronous rotation*	
Tethys	white	yes	round	no	Synchronous rotation*	
Dione	light brown	Yes	round	no	Synchronous rotation*	
Rhea	light brown	yes	round	no	Synchronous rotation*	
Iapetus	White/dkred	yes	round	no	Synchronous rotation*	
Atlas	unknown	unknown	irregular	no	Shepherding**	
Pandora	gray	yes	irregular	no	Shepherding**	
Prometheus	unknown	yes	irregular	no	Shepherding**	
Janus	gray	yes	irregular	no	Co-orbital***	
Epimetheus	gray	yes	irregular	no	Co-orbital***	
Calypso	gray	unknown	irregular	no	Lagrangian****	
Helene	unknown	yes	irregular	no	Lagrangian****	
Telesto	unknown	unknown	irregular	no	Lagrangian****	
Hyperion	light brown	yes	irregular	no	Chaotic*****	
Phoebe	Unknown	yes	round	no	Synchronous rotation*	
Pan	unknown	unknown	irregular	no	Embedded******	

*Synchronous rotation - The orbiting body (moon) takes as long to rotate on its axis as it does to make one orbit and always keeps the same hemisphere pointed at the body it is orbiting.

**Shepherding - Moons that orbit along side a ring. There gravitational effects keep the edges of the rings sharp and distinct. If the shepherding moons were not present, the ring material would have a tendency to spread out.

***Co-orbital - Moons that share, or nearly share the same orbit.

****Lagrangian - Lagrangian moons orbit in the Lagrangian points of larger moons. These are locations within an objects orbit in which a less massive body can move in an identical stable orbit.

*****Chaotic - The moon, Hyperion, tumbles around at random in its orbit, never repeating its orbit exactly. Hyperion is a moon of Saturn that is tugged by the gravitational pull of both Saturn and another moon, Titan. Because of this gravitational pull, Hyperion changes both its rotational speed and its axis of rotation.

******Embedded - Pan, a small moon, is embedded in the A ring and helps to clear the Encke division of particles.